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BỘ LAO ĐỘNG - THƯƠNG BINH VÀ XÃ HỘI
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DIRECTORATE OF VOCATIONAL EDUCATION AND TRAINING

Logistic trends and opportunities in Vietnam

Thomas Harris

Supply Chain Specialist, Harris Global

Hanoi, 24/10/2023



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Vietnam Overview

Vietnam has recorded strong economic growth in recent years despite the pandemic and is well placed to continue growing based on its own export volumes, but also as a key hub location supporting growing trade between ASEAN and China.



Strategic location

Proximity to China and Southeast Asia



One of the fastest economic growth

In the region
6.7% in 2021
8% in 2022
3.5% in 2023



Triple GDP and GDP per capita

In one decade
GDP US\$ 366.1 billion
GDP per capita US\$ \$3,756.5



FDI – a crucial role

Cumulative register investment capital \$439 billion up to 2022 of which manufacturing projects accounts for 61%



Low inflation rate in the region

3.2% in 2022



Import and Export grow together

Export US\$ 371.3 billion
Import US\$ 358.9 billion



Rapid industrialization

SEZs 18
IPs 394



Very populous nation

97.4 million 37.12% urban

Abundant labor force

55 million

30% work in Agriculture

23% work in Manufacturing

Relatively low minimum wage

US\$ 199.83/month



Fairly competitive country

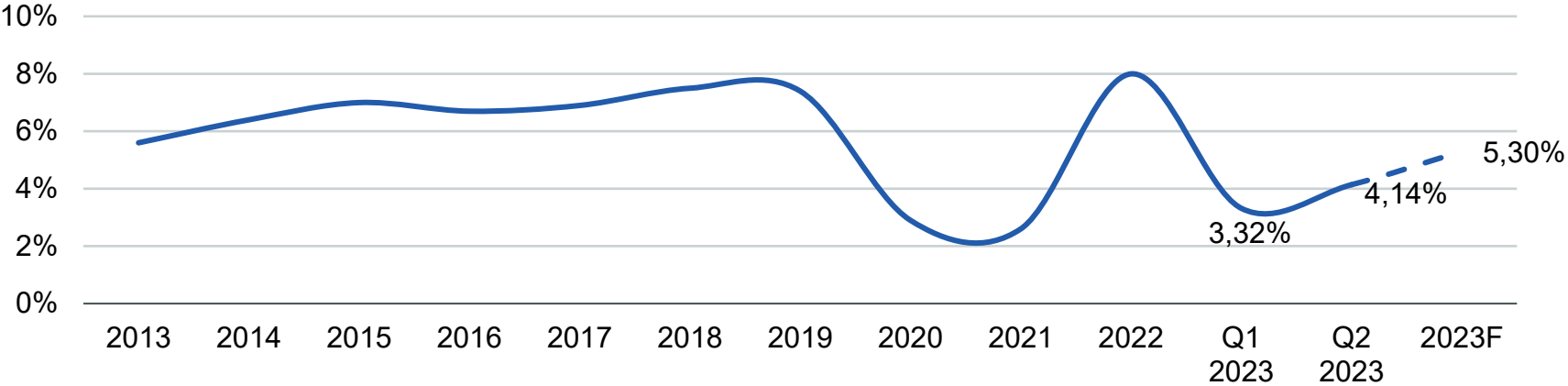
#67 Global Competitiveness Index 4.0 in 2019

#70 Ease of Doing Business in 2020

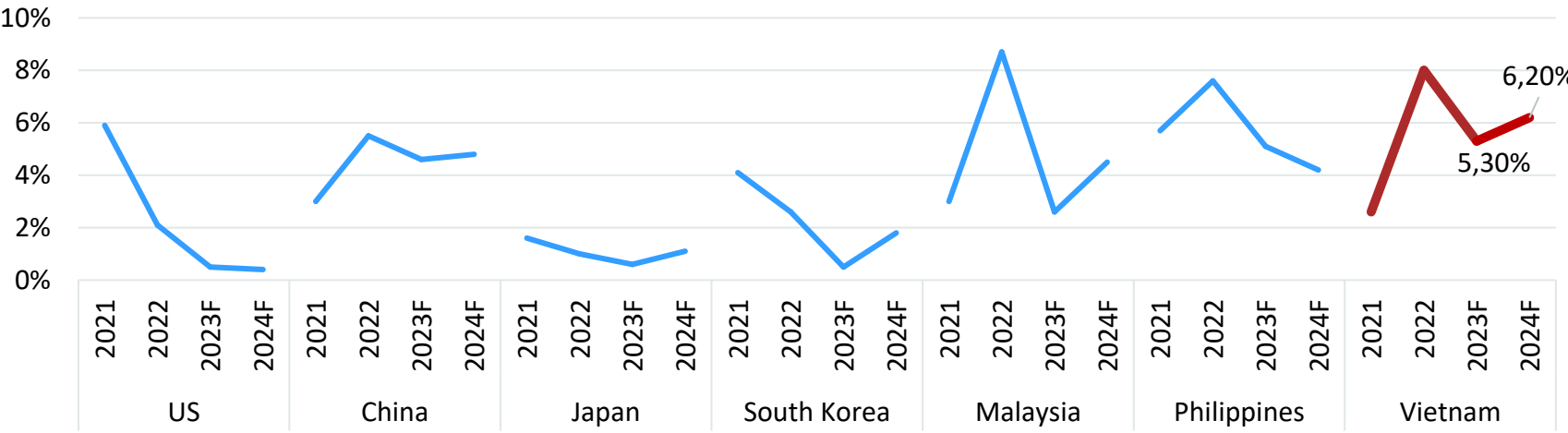
VIETNAM MACRO UPDATE

Vietnam expects a 5.3% growth in 2023 amidst weak global demand

Vietnam's Q2 GDP growth accelerates



By 2024, Vietnam's GDP expects to rebound to 6.2%, the highest in SEA



Vietnam logistics market snapshot

The Vietnam logistics market is forecast for ongoing, strong growth, but the market remains highly fragmented with limited consolidation contributing to Vietnam having one of the highest logistics costs to GDP ratios in the region.

\$76 (bn Euro)
2026 Logistics Market Size

~5.5%
Forecast CAGR, 2022-2027

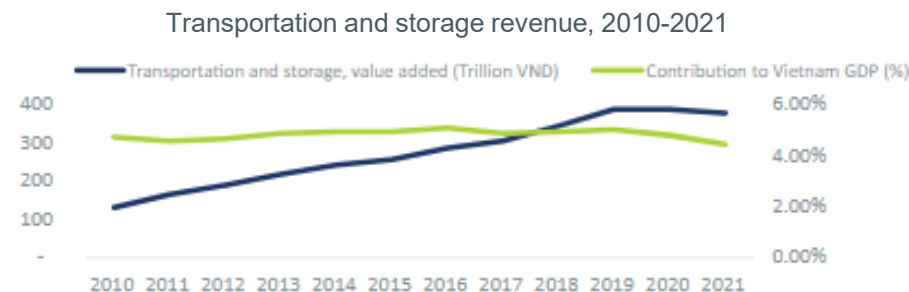
~20%
Logistics Costs % of GDP

60%
Rate of Outsourcing Logistics Service

>3,000
Companies providing outsourced logistics



Market Size by Segmentation (Million euros), 2021-2026



- Vietnam's stable and supportive Government policies, extensive trade agreements and favorable trends in manufacturing, exports and domestic consumption are driving logistics services in the country. Revenue from warehousing and transportation services has increased steadily over the years, except for the two-year decline during the epidemic. It is expected that this level of revenue will soon recover to the level of 2019.
- Growth is forecast across all segments of the inland logistics sector with Contract logistics forecast to grow by the highest amount at 90% between now and 2026. Road transport and warehousing, the largest services in the market are both forecast to achieve 25% growth by 2026.
- The country's logistics industry is benefiting from FTAs and the paid growth of e-commerce. Despite its great potential for growth, poor transport infrastructure and high costs are holding back the logistics industry, resulting in the logistics costs representing 20% of GDP in Vietnam while it is 7-9% in mature markets. With a highly fragmented 3PL market and comparatively high logistics costs, focus is expected to shift to consolidation connectivity and optimization within the logistics sector to ensure that Vietnam can maintain its position as a cost-effective manufacturing base.

Logistics growth drivers and limitations

Strong economic growth and foreign policies are contributing to a growing logistics market, but there are still some challenges to overcome

Growth Drivers



Free Trade Agreements such as RCEP and EVFTA are driving growth in regional and global trade



Manufacturing investment is increasing, and Vietnam is moving up the value chain



E-commerce has increased rapidly and continues to fuel logistics growth



A growing middle class is driving up domestic consumption



Increasing focus on food quality is driving demand for cold chain logistics



Ongoing Challenges



Development of an efficient infrastructure and logistics system



Limitations on access to skilled labour to support logistics operations



Limited cohesive planning around logistics infrastructure development



Low rankings on the Ease of doing business and the Corruption index



Aging transport fleets and warehouse supply

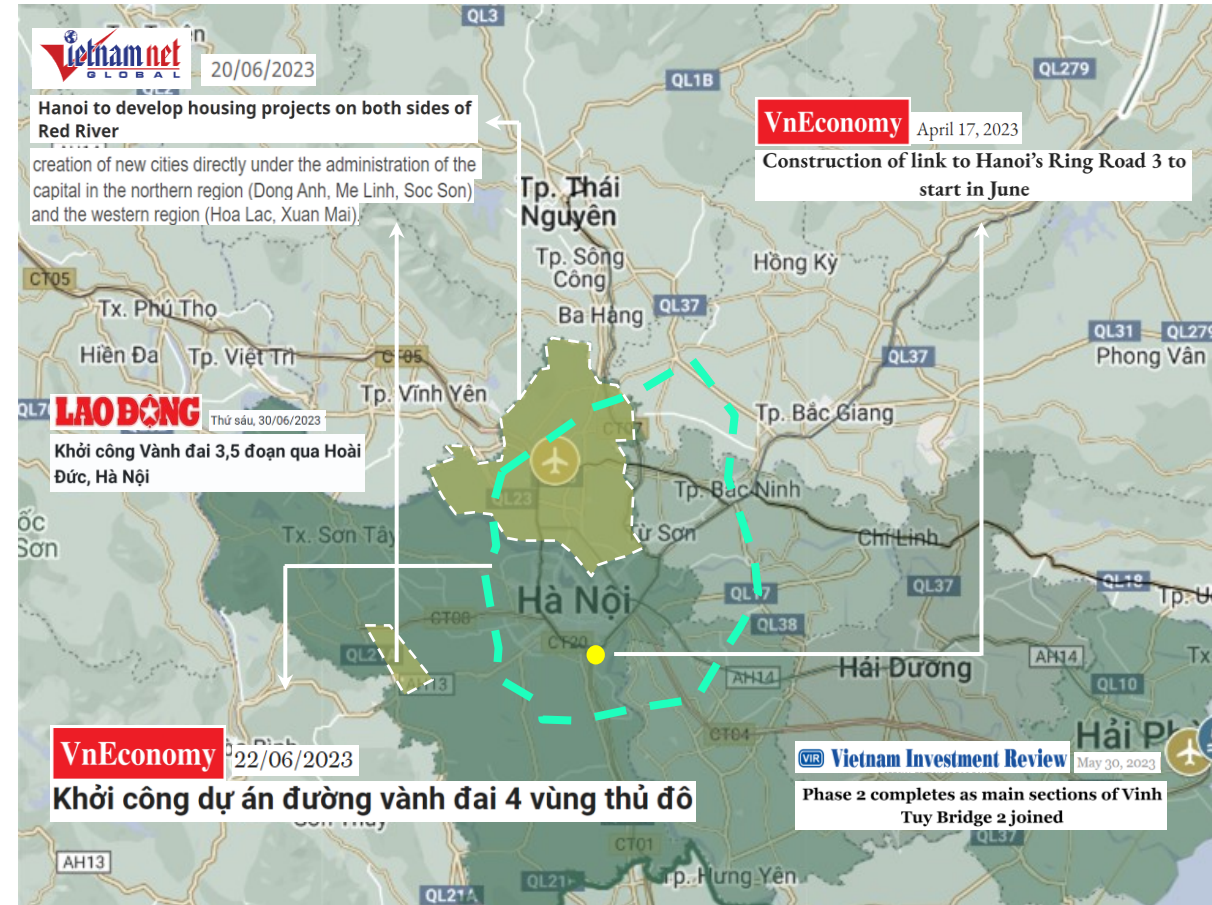
(1) Vietnam General Statistic Office
(2) Vietnam Ministry of Trade
(3) TMX Database

VIETNAM MACRO UPDATE

Commitment in Bettering Infrastructure Across the



Driving Change: Vietnam's Ambitious Plan for Transportation Infrastructure Improvement





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Industrial Market

Thomas Harris

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Hanoi, 24/10/2023



• VIETNAM INDUSTRIAL

Exclusive: Chinese energy storage, battery firms consider big investments in Vietnam

 **REUTERS®** June 7, 2023

Chinese automaker BYD to make EVs in Vietnam

 **CNN BUSINESS** May 8, 2023

Goertek licensed to build new electronic factory in northern Vietnam

 **The Investor** May 10, 2023

 **South China Morning Post**

Foxconn leases new site in Vietnam as Apple contractor continues to diversify production away from China

Feb 15, 2023



Korean investors to invest \$1.5 billion in Haiphong

June 13, 2023

Suntory PepsiCo plans \$39 million factory expansion in southern Vietnam

 **The Investor** Feb 24, 2023



Foxconn gains projects worth \$246 million in Quang Ninh

Jul 01, 2023

Chinese conglomerates express strong interest in expanding investments in Vietnam

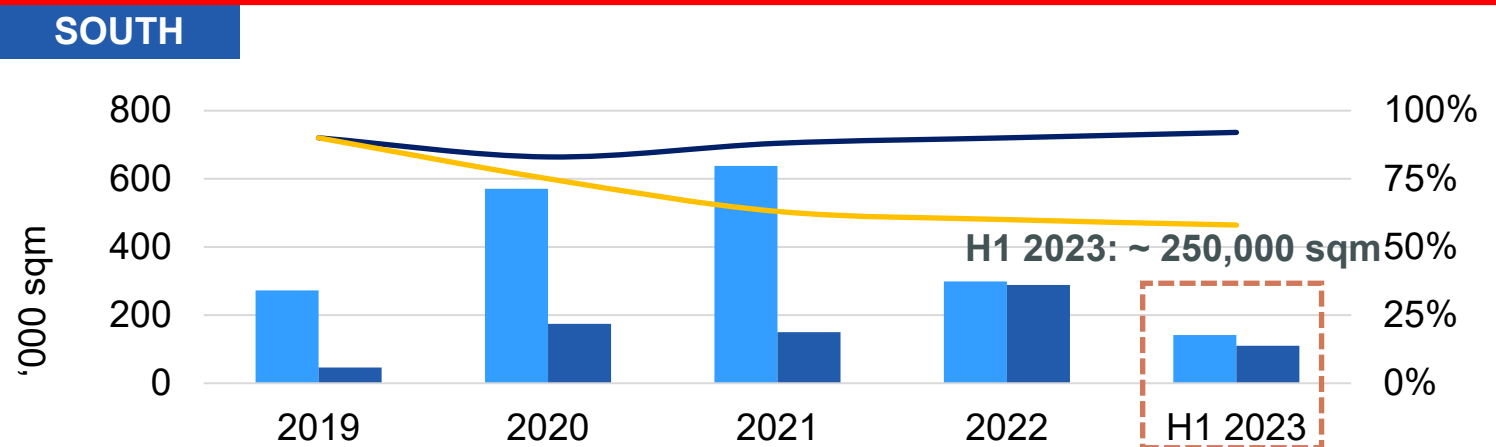
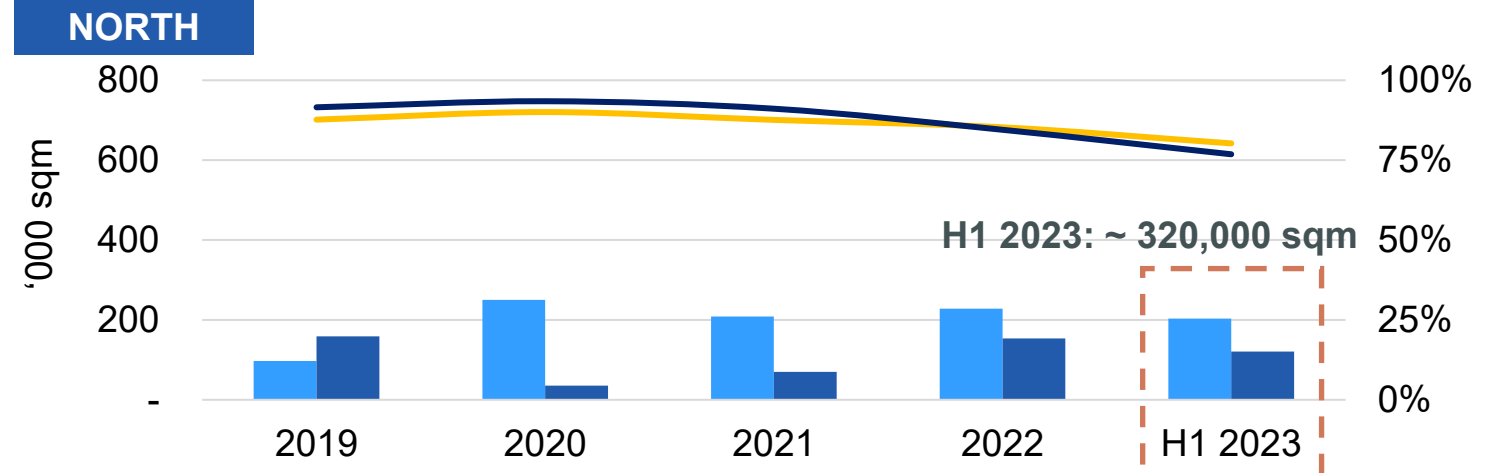
 **THE GIOI & VIETNAM** June 29, 2023
Subsidiary of The World and Viet Nam Report

Top S. Korean chaebols to lead biz delegation for Yoon's Vietnam visit

 **ĐẦU TƯ TÀI CHÍNH** June 14, 2023

RBF/RBW: Strong absorption thanks to the expansion of Chinese manufacturers, especially in the North

Ready-built Warehouse (RBW) and Factory (RBF), Net absorption and Occupancy rates



■ RBF - Net absorption
— RBF - Occupancy rates

■ RBW - Net absorption
— RBW - Occupancy rates

(*) Excluding service warehouse

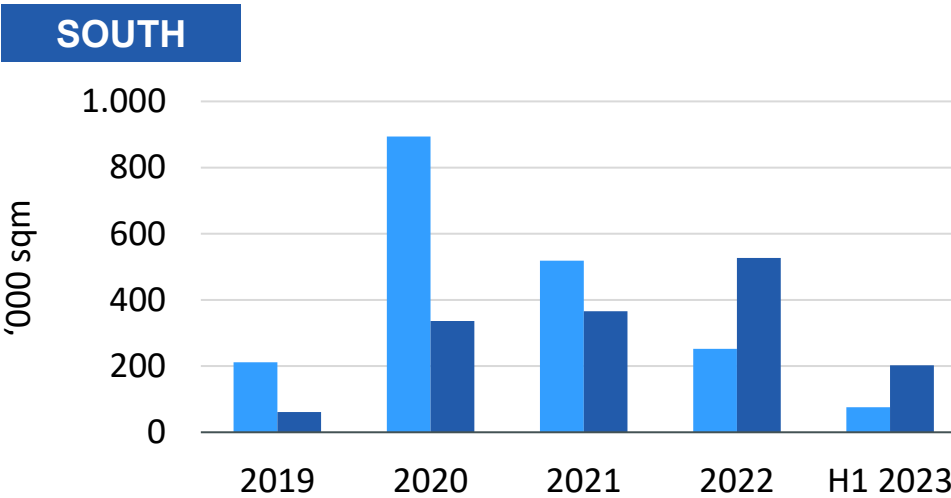
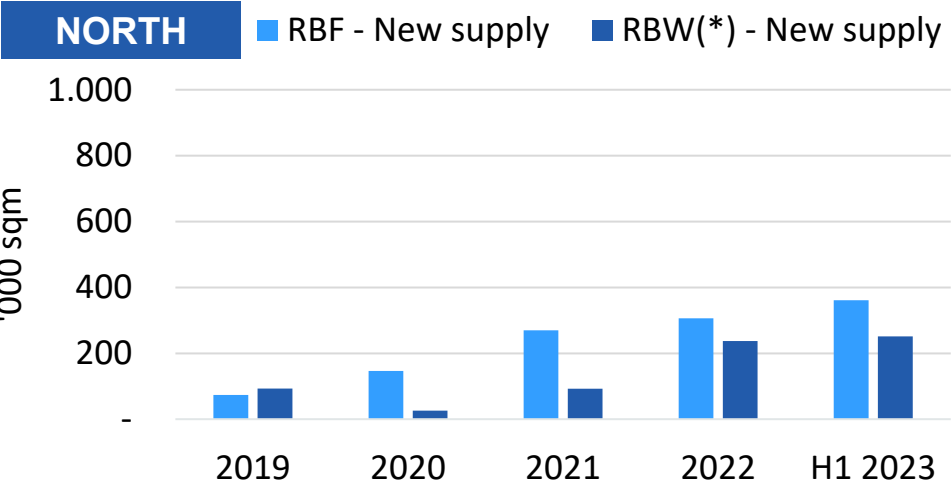
Source: CBRE Research, Q2 2023



RBF/RBW: Supply growth is at the peak, expects to slow down by 2024



(*) Excluding service warehouses

Source: CBRE Research, Q2 2023

RBF/RBW, New Supply



	Accumulated supply	CAGR (2019 – Q2 2023)
 RBF	2.1 mn sqm	23%
 RBW (*)	1.2 mn sqm	22%

 RBF	3.9 mn sqm	18%
 RBW (*)	1.7 mn sqm	49%

VIETNAM INDUSTRIAL

Stronger demand from Chinese tenants after borders' reopening, while EU/US's tenants continue to show interest

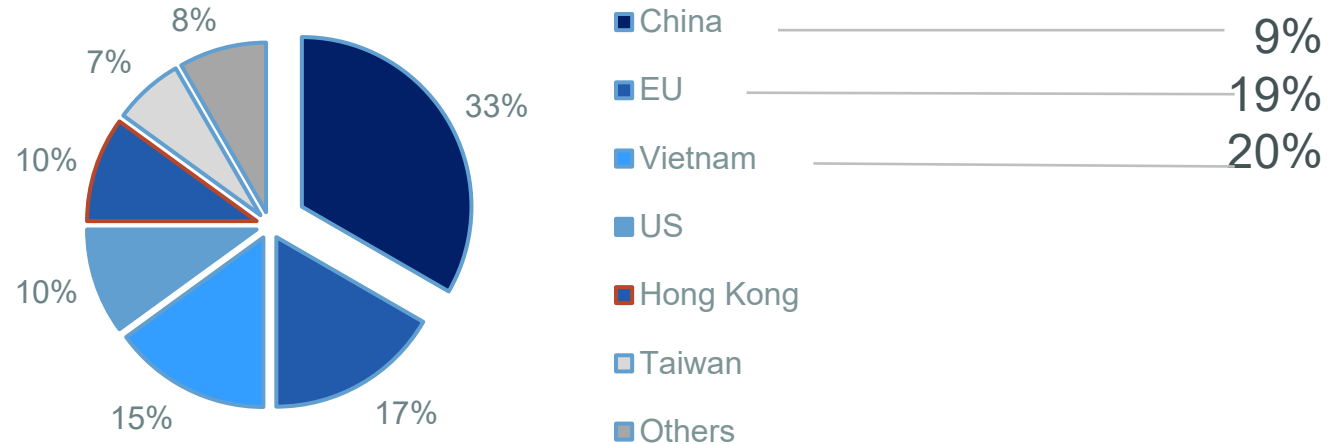
Exclusive: Chinese energy storage, battery firms consider big investments in Vietnam

REUTERS® May 8, 2023

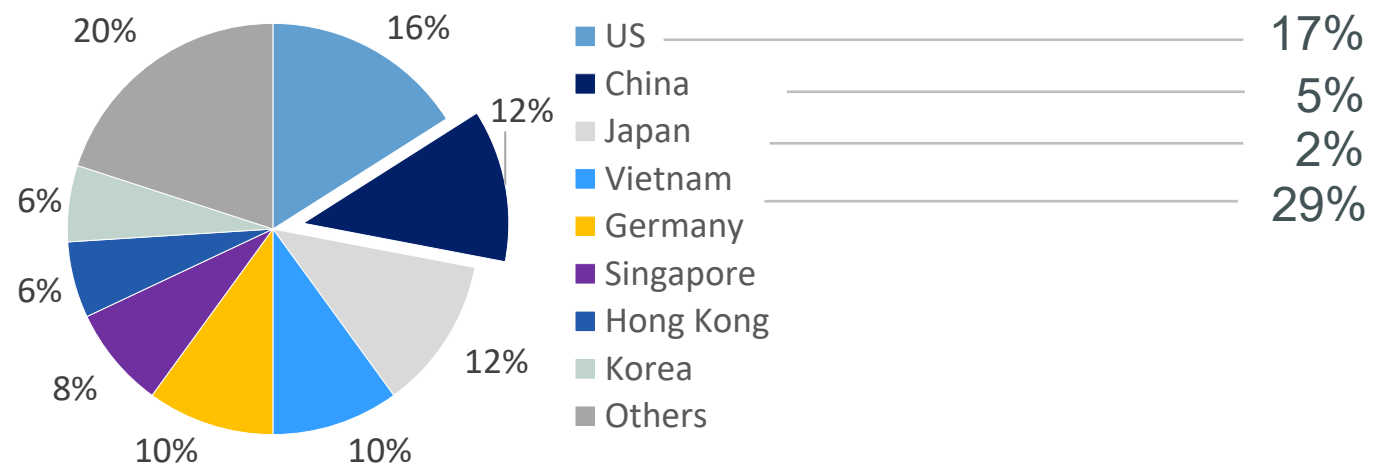
Chinese automaker BYD to make EVs in Vietnam

CNN BUSINESS May 8, 2023

Northern Region, Tenants' Origin based on CBRE's enquiries, H1 2023 Vs. 2022



Southern Region, Tenants' Origin based on CBRE's enquiries, H1 2023

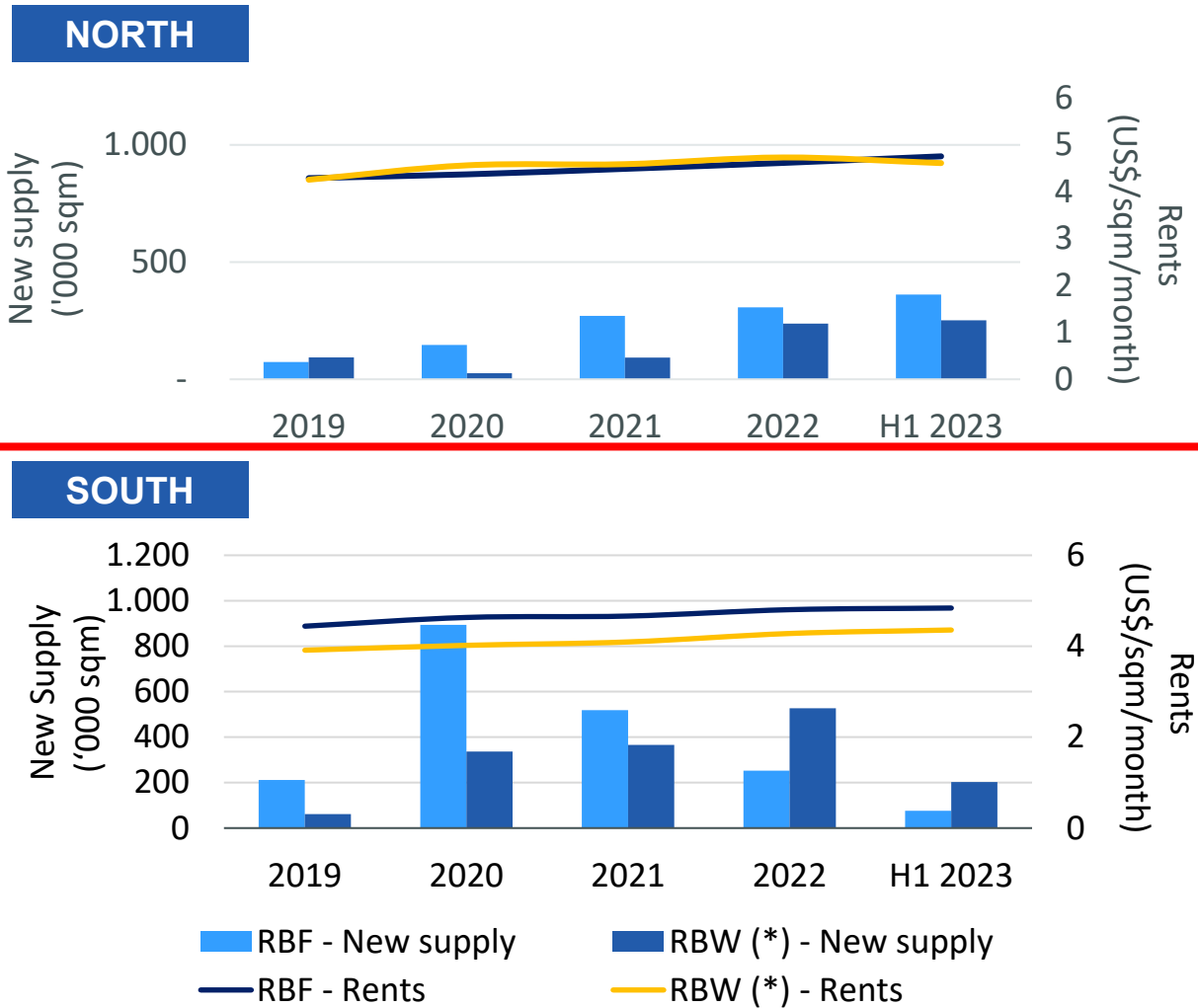




Source: CBRE Research, 2023



RBF/RBW: Rental growth is driven by newer facilities, but limited by strong competition

(*) Excluding service warehouse
Source: CBRE Research, Q2 2023

RBF/RBW, New Supply and Asking rents



CAGR (2019 – Q2 2023)	
	3.0%
RBF	
	2.3%
RBW (*)	

	2.5%
RBF	
	3.1%
RBW (*)	

Sustainability is set to become a mandatory trend among industrial developers and logistics operators

Selected LEED certified and registered industrial projects. Source: GBIG



Emergent Cold
(Bac Ninh)



FM Logistics
(Bac Ninh)
Tetra Pak
(Binh Duong)



BWID Phu
Nghia (Hanoi)



SLP Yen Phong
(Bac Ninh)
CP Paper (HCMC)
Eco Logistics
Centre (Binh
Duong)



Core5 (Hai Phong)
Logos (Bac Ninh)
Horizon Park (Bac Ninh)
Phu Tan IP - RBW (Binh
Duong)

Lego breaks ground on \$1billion carbon-neutral factory in Vietnam

Source: Nikkei Asia

Vinamilk Announces "Pathways to Dairy Net Zero 2050" and the First Carbon-Neutral Factory and Farm in Vietnam

Source: VnEconomy



Sembcorp Deepens Strategic Partnership with Becamex

The two sides will co-establish five Vietnam Singapore Industrial Parks (VSIPs) in Vietnam valued at approximately US\$1 billion. Featuring **decarbonization solutions such as rooftop solar systems, solar farms (where feasible), and green-certified buildings**, the VSIPs are envisioned to be smart and sustainable industrial parks with low carbon footprints.

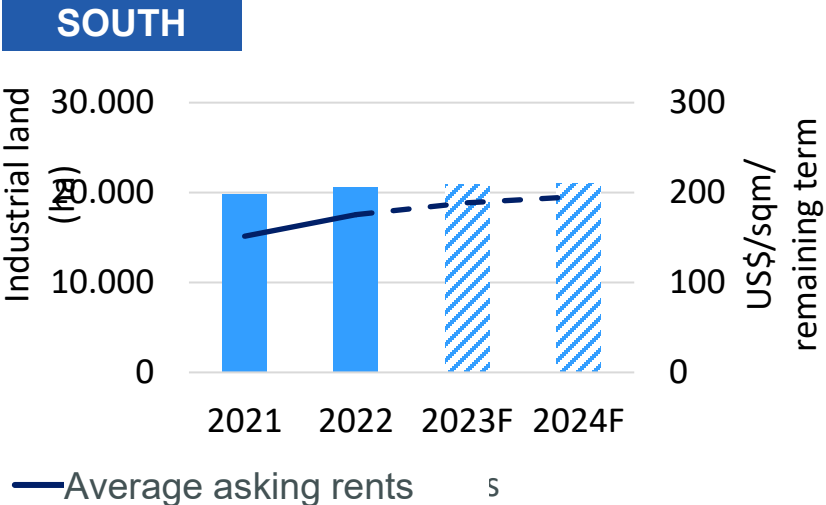
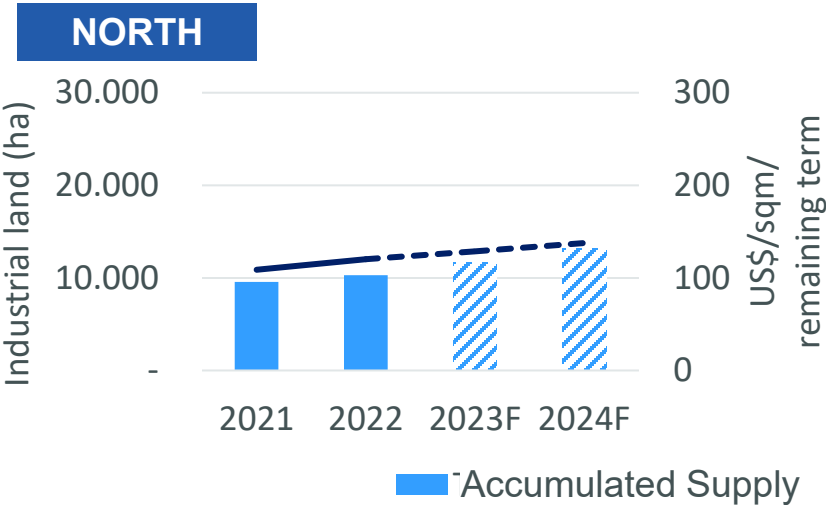
Source: CBRE Research, 2023. Images are taken from the Internet.

VIETNAM INDUSTRIAL

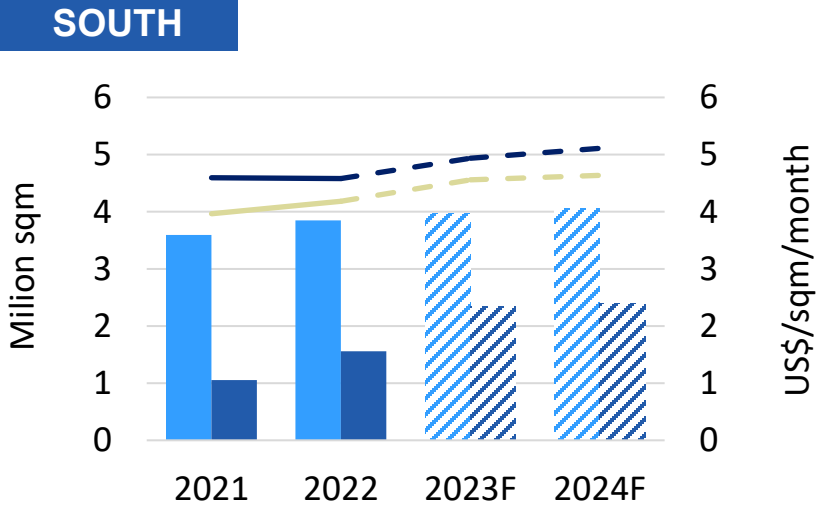
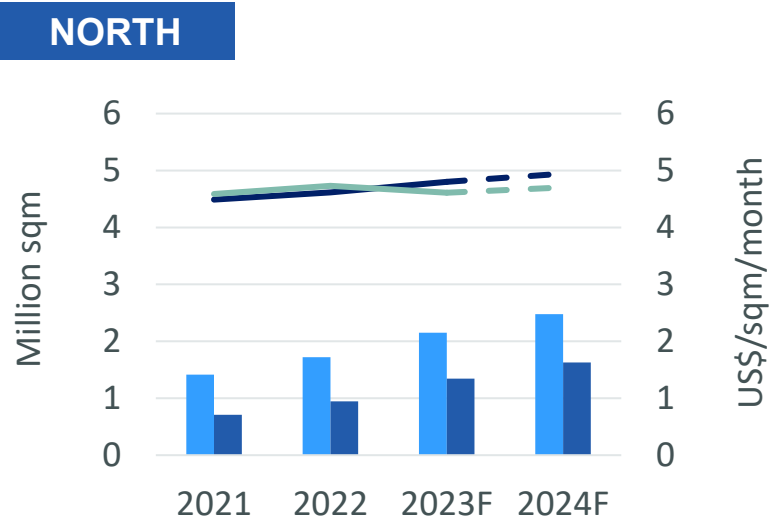
Forecast:
Rental growth
expects to
remain positive,
but will slow
down across
industrial asset
types

Source: CBRE Research, Q2 2023

Industrial Land, Accumulated supply and Rental rates



RBF/RBW, Accumulated supply and Rental rates





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Taking the long view

Thomas Harris

Supply Chain Specialist, Harris Global

Hanoi, 24/10/2023



Where are we heading?

OFFICE



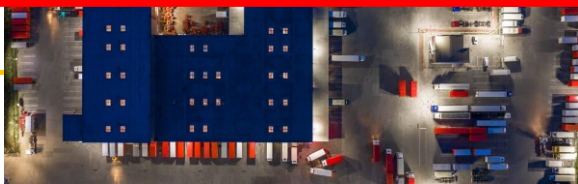
Indicators	6 month change YTD	6 month outlook	12 month outlook
Supply	▲ 1-4%	▲	▲
Rent	▼ 1 - 2%	▼	▼
Absorption	▼ 95-125%	▲	▲
Capital Value	▼	▼	►

RETAIL



Supply	▲ 1-3%	▲	▲
Rent	▲ 7-8%	►	►
Absorption	Flat	►	▲
Capital Value	▼	▼	►

INDUSTRIAL LAND



Supply	▲ 2 - 3%	▲	▲
Rent	▲ 6 - 7%	►	▲
Absorption	▲ 20% – 60%	►	▲

RBW/RBF



Supply	▲ 16 - 20%	▲	▲
Rent	Flat	►	▲
Absorption	Flat	►	▲
Capital Value	▼	►	▲

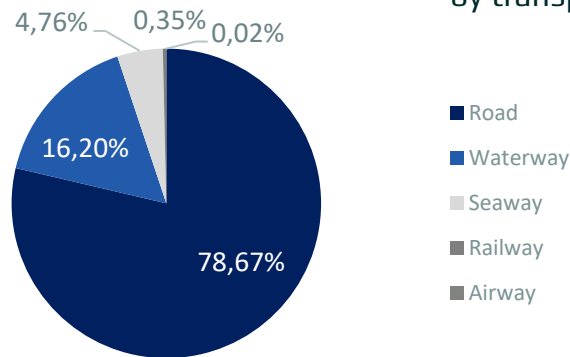
Source: CBRE Research, Q2 2023

6-month change: compare H1 2023 to H2 2022 | 6-month outlook: forecast change of H2 2023 to H1 2023 | 12-month outlook: forecast change of H1 2024 to H1 2023

Vietnam Transportation - Ongoing reliance on road

Road remains the dominant transport mode for moving products within Vietnam, though infrastructure development is struggling to keep up with volumes resulting in an increasing focus on alternate modes.

Volume of goods transported
by transport type



1.6 billion
Tonnes of Domestic
Freight (2021)

8.53%
Pre-Pandemic
YOY Growth

**1.1
million**
Registered Trucks in
Vietnam (2018)

27.1%
Road Transport in
Total Logistics
Costs

Road Transportation

- The **convenience and accessibility of road transport** makes it by far, the dominant mode. Currently, goods are mainly transported via road (nearly 72% of cargo volume in 2022 was transported by road). In addition, due to the geographical advantage of many rivers and canals, especially in the South, water transport also accounts for a large proportion of all modes of transport (22.7%). Next is sea, rail, and air.
- The **efficiency of road transport is however low**, with high levels of traffic congestion, low travel speeds and long waiting times due to a lack of planning and connectivity between transport modes.
- The potential for exploiting the capacity of road transport has not yet reached the highest level because of road works are still not consistent in quality and key traffic projects are at risk of being behind schedule.

- Most trucks in Vietnam are small vehicles for local distribution where limited modal choice exists. Alternate modes are gaining focus for heavy freight and longer routes

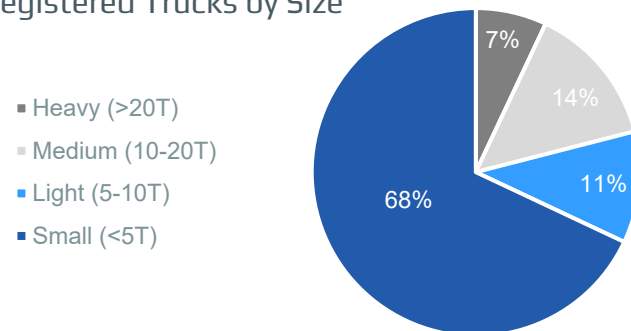
Rail Transportation

- Vietnam's **rail infrastructure is considered outdated** with limited capacity for cargo and long lead times. Rail upgrades are a key part of the government's logistics master plan however, it is expected to be **some time before the benefits are realized**.

Waterway Transportation

- Waterway transport is focused in the South** and gaining more traction as an alternative mode to road for container transport to ports and ICDs. Although travel times are longer, the carrying capacity of up to 45 TEUs per trip makes the **cost per unit very attractive**. River port upgrades are required to support significantly higher volumes.







Registered Trucks by Size



(1) GSO, 2023
(2) Transport Intelligence 2022
(3) Armstrong and Associates
(4) TMX Database and Research







Future trends - A broad focus on development

Logistics industry growth is expected to be ongoing in the foreseeable future with a number of key trends expected to influence the level and direction of development in the sector.

 <p>Infrastructure</p>	<ul style="list-style-type: none"> ▪ Ongoing road and port upgrades will support growth. ▪ Rail upgrades will play a pivotal role in the development of local and cross border transport but need to be supported by inland logistics development. ▪ Additional investment is expected in river ports and ICDs to develop intermodal capabilities. 	 <p>Automation</p>	<ul style="list-style-type: none"> ▪ As logistics and labor costs increase, the value proposition for warehouse automation will become more attractive. ▪ Demand for higher class warehouses that can support automation is expected to increase. ▪ Robotics as a service (RAAS) is also being touted and likely to emerge as an option in the short term.
 <p>Sustainability</p>	<ul style="list-style-type: none"> ▪ Reliance on road transport is expected to drive focus on electric vehicles in future. ▪ More energy efficient warehousing design will also become key to reducing operating costs. ▪ Smarter fleet design to increase load utilization and more efficient transport planning will also become key to reducing emissions and costs. 	 <p>Cold Chain</p>	<ul style="list-style-type: none"> ▪ Growing focus on food safety and increasing food exports are driving growth in cold chain logistics with many companies entering this segment of the market. ▪ Significant investment has been made in cold storage facilities in both the north and south and cold chain transport is gaining more attention. ▪ Ongoing growth is expected in the medium term.
 <p>Digitalization</p>	<ul style="list-style-type: none"> ▪ Vietnam is in the nascent stage of supply chain digitalization, but there is increasing focus and investment in this space. ▪ Opportunities exist at discrete supply chain levels, but also at a macro level in areas such as modal connectivity and transport interchange brokerage among others including port management and end to end solutions. 	 <p>Capability Development</p>	<ul style="list-style-type: none"> ▪ Availability of skilled labor is a problem across the logistics sector especially as manufacturing is becoming more sophisticated. ▪ Numerous training organizations have developed, but there will need to be an ongoing focus on upskilling the workforce as the industry grows.

Future trends - Automation

The "**right now**" **expectation** is putting high pressure on the logistics chain and warehouses automation technology must evolve to survive and compete. We can't deny it, warehouse automation brings huge benefits **in terms of productivity, safety and efficiency**.

 <p>Cloud</p>	<p>1. Cloud-based Warehouse Management Systems (WMS)</p> <ul style="list-style-type: none"> • Much more scalable and flexible than a site-based WMS • Software-as-a-service (SaaS) subscription rather than paying for software licenses. • Advanced cybersecurity, fast processing power and 24-hour maintenance services. 	 <p>AI</p>	<p>4. Machine Learning (ML) in Warehouse Labor Planning Systems</p> <ul style="list-style-type: none"> ▪ (AI) technology in which machines are created with the ability to improve their decision-making and performance through experience. ▪ Application would be an order-picking mobile robot which learns how to handle different items in ways that avoid breakage. ▪ ML can be used to make warehouse labor planning systems much more accurate and efficient
 <p>AGV</p>	<p>2. Mobile Robots - Displacing Conveyors</p> <ul style="list-style-type: none"> ▪ Automatic conveyance systems is that they take up a large amount of your warehouse space ▪ Fixed structure also makes it difficult and expensive to alter your warehouse layout to meet changing needs. ▪ AGV's start receiving a return on your investment (ROI) sooner. Once in use, they adapt quickly and easily to any redesign of the operation. 	 <p>Automated XD</p>	<p>5. Automated cross-docking</p> <ul style="list-style-type: none"> ▪ Transfer incoming goods to outbound vehicles with little or no need for storage and with minimal handling. ▪ This time-saving and space-saving approach can be even more efficient if it is automated. ▪ Time and labor can be reduced further by implementing an automated scanning and sortation system.
 <p>DATA</p>	<p>3. Big Data and Analytics</p> <ul style="list-style-type: none"> • 'Smart' warehouses automatically gather huge amounts of data • Task has become fast and automatic. • Analytics systems can detect patterns in your data which would otherwise be invisible optimum decision-making and improvement, ensure the fastest possible flow of goods. 	 <p>RaaS</p>	<p>6. Mobile Robots as a Service (RaaS)</p> <ul style="list-style-type: none"> • This cloud-based subscription package approach to deploying AGVs and AMRs means you no longer need to make large capital investments to obtain their benefits. • RaaS allows you to use mobile robots without buying them.



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Thank you



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